

Task Group Meeting Minutes, 3/03/04

FAATC has agreed to update the "Calibration and Testing Guidelines" document that describes the burnthrough test in detail. The updated document will include many of the items discussed in Boeing's testing document, presented at the 6/03 meeting. The new document will be placed on the www.fire.tc.faa.gov website in the Materials/Burnthrough section.

Discussed the effect of tucking the blanket test samples into the corners of the test sample holder. The blankets will naturally want to "spring" out of the tucked position, so a variety of corner radii will result, depending on the degree of tucking. The more tucking done during blanket installation on the test frame, the tighter the radius, and likely the more severe the test. Boeing and the FAATC agreed to take a closer look at this problem, and possibly run a number of comparison tests to determine an acceptable range of radii.

The group agreed that pressure relief holes or "slits" are a necessary item on the backface of the insulation test samples, to allow heated gases to escape, preventing the blanket from "ballooning" on the back side. The problem is that there is no guidance in terms of the size, location, and orientation of the holes. The group suggests that the FAATC come up with some type of guidance and include in the updated document on calibration and test guidelines, and possibly the soon-to-be-released Advisory Circular.

The cool-down period between tests was discussed. It was suggested that the test results can be slightly impacted depending on the temperature of the sample holder, in particular the center vertical former. There are a number of ways to expedite the cooling process between tests, including the use water mist, leaving the blower fan on, etc. The idea is to avoid placing the new test samples on the frame while it is still very hot. The FAATC agreed to develop some guidelines, and include them in the updated Calibration and Testing Guidelines document.

The testing of horizontal lap joints was discussed. The FAATC had run numerous tests in Jan-Feb 2001 in which the sample holder was moved off center by 10 inches, in order to center the burner cone between two of the frame rails. This allowed unimpeded flame impingement of the lap joint. Testing had shown that a standard, unfastened joint required 6 inches of lap in order to meet the 4-minute requirement. In the event that a manufacturer wishes to minimize this lap dimension, similar testing will be required to show compliance. This and other similar material will be included in the Advisory Circular.

Two task group members agreed to pursue the development of a "no-moving-parts" air flow control system for the burnthrough apparatus. The current standard calls for the use of a mechanical velometer (Omega HH-30), which can fall out of calibration, depending on frequency of use, environment, etc. The approach is to develop a simple system, similar to what is currently used on the OSU rate of heat release apparatus. If such a

system can be perfected, it's a good example of something that could be included in the Handbook Chapter on Burnthrough.

FAATC would like to begin visiting select burnthrough laboratories, in order to evaluate and (where necessary), rectify problems with the equipment. It is anticipated that during these visits, some of the round robin test samples could be run as well.